

# TENTATIVE—SUBJECT TO CHANGE

# CHEM 1151 – Survey of Inorganic Chemistry Lab

# COURSE SYLLABUS

**Spring Semester 2023 (202314)**

## Course information

Credit Hours/Minutes: 1/2250

Campus/Class Location: Blackboard

Class Meets: In person for 15 weeks

Course Reference Number (CRN): 40180

## Instructor contact information

Instructor Name: [Shirley Holman](mailto:sholman@southeasterntech.edu) [(sholman@southeasterntech.edu)](file:///\\stc-share-vid\shared$\Academic%20Affairs\INSTRUCT\SYLLABI%20and%20LESSON%20PLANS\FY23\Gen%20ED\S.%20Holman\Spring202314\(sholman@southeasterntech.edu))

Office Location: no office on campus

Office Hours: By Appointment

Email Address: sholman@southesterntech.edu

Tutoring Hours: By Appointment

## Southeastern technical college’s (STC) Catalog and Handbook

Students are responsible for all policies and procedures and all other information included in Southeastern Technical College’s [Catalog and Handbook](http://www.southeasterntech.edu/student-affairs/catalog-handbook.php) (<http://www.southeasterntech.edu/student-affairs/catalog-handbook.php>).

## REQUIRED TEXT

EScience Lab Kit - Introductory Chemistry Version 4 (2nd edition)

## REQUIRED SUPPLIES & SOFTWARE

Scientific Calculator

Ruler

Bound Notebook

Black ink pen

## COURSE DESCRIPTION

Selected laboratory experiments paralleling the topics in CHEM 1151. The lab exercises for this course include units of measurements, structure of matter, chemical bonding, chemical reactions, gas laws, liquid mixtures, acids and bases, salts and buffers, and nuclear chemistry.

## MAJOR COURSE COMPETENCIES

1) Laboratory Safety; 2) Units of Measurements; 3) Structure of Matter; 4) Chemical Bonding; 5) Chemical Reactions; 6) Gas Laws; 7) Liquid Mixtures; 8) Acids and Bases; 9) Salts and Buffers; 10) Nuclear Chemistry

## PREREQUISITE(S)

None

## COURSE OUTLINE

1. Laboratory Safety
2. Units of Measurement
3. Structure of Matter
4. Chemical Bonding
5. Chemical Reactions
6. Gas Laws
7. Liquid Mixtures
8. Acids and Bases
9. Salts and Buffers
10. Nuclear Chemistry

## GENERAL EDUCATION CORE COMPETENCIES

STC has identified the following general education core competencies that graduates will attain:

1. The ability to utilize standard written English.
2. The ability to solve practical mathematical problems.
3. The ability to read, analyze, and interpret information.

## STUDENT REQUIREMENTS (Online)

This course includes the completion of lab experiments and reports paralleling the topics in CHEM 1151. The lab exercises for this course include units of measurement, structure of matter, chemical bonding, chemical reactions, gas laws, liquid mixtures, acids and bases, salts and buffers, and nuclear chemistry.

You must purchase an *EScience Lab Kit – KIT4604* from the bookstore. The experiments included in the lab kits use safe and green chemicals, which means there are minimal personal and environmental risks. Topics required to fully understand the lab will be covered in the lecture and will assist in properly answering and completing the lab questions and reports. Students must have access to reliable internet service to access lab manual. Folder, black ink pen, ruler, graphing paper, camera or device capable of taking pictures, and scientific calculator are required for this course

Note: Although students can use their smart phones and tablets to access their online course(s), exams, discussions, assignments, and other graded activities should be performed on a personal computer. Blackboard cannot provide technical support for issues relating to the use of a smart phone or tablet so students are advised to not rely on these devices to take an online course.

**Students should not share login credentials with others and should change passwords periodically to maintain security.**

## **Lab Reports**

Students must purchase an *EScience Lab Kit - Introductory Chemistry Version 4 (2nd edition)* from the bookstore. Students must conduct each experiment and submit the completed lab reports by the specified due dates.

## COVID-19 MASK REQUIREMENT

Masks or face coverings must be worn at all times while on the campus of Southeastern Technical College. This measure is being implemented to reduce COVID-19 related health risks for everyone engaged in the educational process. Masks or face coverings must be worn over the nose and mouth, in accordance with the Centers for Disease Control and Prevention (CDC). A student’s refusal to wear a mask or face covering will be considered a classroom disruption and the student may be asked to leave campus and/or receive further discipline.

## COVID-19 Signs and symptoms

We encourage individuals to monitor for the signs and symptoms of COVID-19 prior to coming on campus.

If you have experienced the symptoms listed below or have a body temperature 100.4°F or higher, we encourage you to self-quarantine at home and contact a primary care physician’s office, local urgent care facility, or health department for further direction. Please notify your instructor(s) by email and do not come on campus for any reason.

| **COVID-19 Key Symptoms** |
| --- |
| Fever or felt feverish |
| Cough: new or worsening, not attributed to another health condition |
| Shortness of breath, not attributed to another health condition |
| New loss of taste or smell |
| Chills; Repeated shaking with chills |
| Sore throat, not attributed to another health condition |
| Muscle pain, not attributed to another health condition or exercise |
| Headache, not attributed to another health condition |
| Diarrhea (unless due to known cause) |
|  |
| **In the past 14 days, if you:** |
| Have had close contact with or are caring for an individual diagnosed with COVD-19 at home (not in healthcare setting), please do not come on campus and contact your instructor (s). |

## Covid-19 Self-Reporting Requirement

Students, who test positive for COVID-19 or who have been exposed to a COVID-19 positive person, are required to self-report using the [COVID\_19 Health Reporting Form](https://bit.ly/2Xq4g0f). Report all positive cases of COVID-19 to your instructor and [Stephannie Waters](mailto:swaters@southeasterntech.edu), Exposure Control Coordinator, [swaters@southeasterntech.edu](mailto:swaters@southeasterntech.edu), 912-538-3195.

## ATTENDANCE GUIDELINES

It is the student’s responsibility to be academically engaged each week doing course related activities. The completion dates of these activities will be used to determine a student’s last date of attendance in the event a student withdraws, stops attending, or receives an “F” (Failing 0-59) in a course. Students will not be withdrawn by an instructor for attendance; however, all instructors will keep records of graded assignments and student participation in course activities. Students will be expected to complete all work required by the instructor as described in the individual course syllabus. Students will have at least one week to complete tests and assignments. All tests and assignments are due at 11:59 p.m. on Friday of each week. Exceptions to the due dates of assignments due to jury duty, military duty, court duty, or required job training will be made at the discretion of the instructor.

## STUDENTS WITH DISABILITIES

Students with disabilities who believe that they may need accommodations in this class based on the impact of a disability are encouraged to contact the appropriate campus coordinator to request services.

Swainsboro Campus: [Emily Jarrell](mailto:ejarrell@southeasterntech.edu) [(ejarrell@southeasterntech.edu)](file:///\\stc-share-vid\shared$\Academic%20Affairs\INSTRUCT\SYLLABI%20and%20LESSON%20PLANS\FY23\Gen%20ED\S.%20Holman\Spring202314\(ejarrell@southeasterntech.edu)), 478-289-2259 478-289-2274, Building 1, Room 1210.

Vidalia Campus: [Helen Thomas](mailto:hthomas@southeasterntech.edu) ([hthomas@southeasterntech.edu](mailto:hthomas@southeasterntech.edu)), 912-538-3126, Building A, Room 165.

## **Specific Absences**

Provisions for Instructional Time missed because of documented absences due to jury duty, military duty, court duty, or required job training will be made at the discretion of the instructor.

## **PREGNANCY**

Southeastern Technical College does not discriminate on the basis of pregnancy. However, we can offer accommodations to students who are pregnant that need special consideration to successfully complete the course. If you think you will need accommodations due to pregnancy, please make arrangements with the appropriate campus coordinator.

Swainsboro Campus: [Emily Jarrell](mailto:ejarrell@southeasterntech.edu) [(ejarrell@southeasterntech.edu)](file:///\\stc-share-vid\shared$\Academic%20Affairs\INSTRUCT\SYLLABI%20and%20LESSON%20PLANS\FY23\Gen%20ED\S.%20Holman\Spring202314\(ejarrell@southeasterntech.edu)), 478-289-2259 478-289-2274, Building 1, Room 1210.

Vidalia Campus: [Helen Thomas](mailto:hthomas@southeasterntech.edu) ([hthomas@southeasterntech.edu](mailto:hthomas@southeasterntech.edu)), 912-538-3126, Building A, Room 165.

It is strongly encouraged that requests for consideration be made **PRIOR** to delivery and early enough in the pregnancy to ensure that all the required documentation is secured before the absence occurs. Requests made after delivery MAY NOT be accommodated. The coordinator will contact your instructor to discuss accommodations when all required documentation has been received. The instructor will then discuss a plan with you to make up missed assignments.

**CHECKING GRADES**

A grade book is made available in the BLACKBOARD course on the main page by clicking the MY GRADES link when students log in. This grade book is for students to review and is continuously updated throughout the semester. Students can view their grades at any time to see the individual grades for each assignment. The overall percentage averages should display in the grade book to help track course progress.

**NO HARM NO FOUL POLICY**

It is the student’s responsibility to drop courses during the first three days by completing a withdrawal form with a Counselor in Student Affairs. If a student comes to class during the first three days or any day during this time, the student will be dropped with no penalty only if they have completed the Withdrawal Form with Student Affairs by the close of business on the third business day of the semester. (For Spring Semester, the date will be January 11). The student must formally withdraw from classes in order to receive the no harm no foul benefit. The student will be charged for the class unless he/she formally withdraws.

**NO SHOW REQUIREMENT**

**It is the student’s responsibility to have all materials for the course on the first day of the semester. This is the student’s responsibility in a traditional, hybrid, or online course. To be considered in attendance, the student must complete the following assignments:**

• Getting Started Orientation

• Pledge Acknowledgement Quiz

• Blackboard Orientation Quiz

• Student Introduction

Please complete these assignments within the **first three days of the course or by January 11, 2023 (11:59 p.m.).**

## Withdrawal Procedure

Students wishing to officially withdraw from a course(s) or all courses after the drop/add period and prior to the 65% point of the term in which student is enrolled (date will be posted on the school calendar) must speak with a Career Counselor in Student Affairs and complete a Student Withdrawal Form. A grade of “W” (Withdrawn) is assigned for the course(s) when the student completes the withdrawal form. Important – Student-initiated withdrawals are not allowed after the 65% point. After the 65% point of the term in which the student is enrolled, the student has earned the right to a letter grade and will receive a grade for the course. Please note: Abandoning a course(s) instead of following official withdrawal procedures may result in a grade of “F” (Failing 0-59) being assigned. Informing your instructor that you will not return to his/her course, does not satisfy the approved withdrawal procedure outlined above. There is no refund for partial reduction of hours. Withdrawals may affect students’ eligibility for financial aid for the current semester and in the future, so a student must also speak with a representative of the Financial Aid Office to determine any financial penalties that may be accessed due to the withdrawal. A grade of “W” will count in attempted hour calculations for the purpose of Financial Aid.

**PROCTORED EVENT REQUIREMENT**

In order to validate student identity for all online courses, students enrolled in online courses are required to complete one proctored event per online course. Students are required to bring a photo ID (STC Student ID, Driver’s License, or Passport) to the proctored event. The proctored event will be administered on separate days—once on the Vidalia campus and once on the Swainsboro campus. Students must attend one of the proctored sessions as scheduled on the Lesson Plan/Course Calendar. The event will be monitored by the instructor or by an approved proctor. The proctored event may be a major exam, assignment, or presentation, etc. that will count a minimum of 20% of the course grade. Students must attend one of the scheduled proctored sessions and will need to make arrangements with work, childcare, etc. The specific dates of the proctored event are scheduled on the Lesson Plan/Calendar for the online course.

Students living farther than 75 miles from either campus who cannot come to Southeastern Tech for the event must secure an approved proctoring site. The site and the proctor must meet Southeastern Technical College's requirements (instructor will provide more information and necessary forms if this is the case). Note: Students taking proctored events off campus will utilize the Proctor Scheduling and Approval Form found in Blackboard within the Getting Started/Start Here and Proctoring Event area. The completed form should be submitted to the course instructor a minimum of two weeks prior to the proctored event. If approved, the instructor will notify the proctor.

Students arranging off-campus proctoring must take the event on one of the originally scheduled days. Students who do not complete the proctored event as scheduled must submit a valid documented excuse within three business days after the scheduled event. If the excuse is approved by the instructor of the course, students must make arrangements with the instructor to makeup/reschedule the missed event. The penalty and makeup instructions will be at the instructor’s discretion. Proctored events will be given after the 65% point of the semester. Students who do not complete the proctored event on the scheduled date and do not present a valid documented excuse within three business days of the scheduled event will be given a zero for the proctored event.

**PROCTORING FEES**

Students are not charged a proctoring fee when taking a proctored event at Southeastern Technical College or any other TCSG college. Students who choose to use an off-campus proctor may be assessed a proctoring fee by the proctoring site. In this instance, the student is responsible for payment. The required proctored event for this class is scheduled on the following dates and times: Vidalia Campus, (April 18), (1:00-3:00 p.m.), (room 403) and Swainsboro Campus, (April 20), (1:00-3:00 p.m.), (room 2131).

## **MAKEUP GUIDELINES** (Tests, quizzes, homework, projects, etc.)

All labs are due by the date stated in the Lesson Plan section of this syllabus. All Labs are to be submitted through Blackboard. Select the lab and upload your documents to submit them. Students will be permitted to submit their labs up to one week after the due date with a 5 point deduction from the earned score. After the one-week grace period no labs will be accepted for any reason.

## ACADEMIC DISHONESTY POLICY

The Southeastern Technical College Academic Dishonesty Policy states that all forms of academic dishonesty, including but not limited to cheating on tests, plagiarism, collusion, and falsification of information, will call for discipline. The policy can also be found in the Southeastern Technical College Catalog and Handbook.

## Procedure for Academic Misconduct

The procedure for dealing with academic misconduct and dishonesty is as follows:

1. **First Offense**

Student will be assigned a grade of "0" for the test or assignment. Instructor keeps a record in course/program files and notes as first offense. The instructor will notify the student's program advisor, academic dean, and the Registrar at the student's home campus. The Registrar will input the incident into Banner for tracking purposes.

1. **Second Offense**

Student is given a grade of "WF" (Withdrawn Failing) for the course in which offense occurs. The instructor will notify the student's program advisor, academic dean, and the Registrar at the student's home campus indicating a "WF" has been issued as a result of second offense. The Registrar will input the incident into Banner for tracking purposes.

1. **Third Offense**

Student is given a grade of "WF" for the course in which the offense occurs. The instructor will notify the student's program advisor, academic dean, and the Registrar at the student's home campus indicating a "WF" has been issued as a result of third offense. The Vice President for Student Affairs, or designee, will notify the student of suspension from college for a specified period of time. The Registrar will input the incident into Banner for tracking purposes.

## **STATEMENT OF NON-DISCRIMINATION**

The Technical College System of Georgia (TCSG) and its constituent Technical Colleges do not discriminate on the basis of race, color, creed, national or ethnic origin, gender, religion, disability, age, political affiliation or belief, genetic information, disabled veteran, veteran of the Vietnam Era, spouse of military member, or citizenship status (except in those special circumstances permitted or mandated by law). This nondiscrimination policy encompasses the operation of all technical college-administered programs, federally financed programs, educational programs and activities involving admissions, scholarships and loans, student life, and athletics. It also applies to the recruitment and employment of personnel and contracting for goods and services.

All work and campus environments shall be free from unlawful forms of discrimination, harassment and retaliation as outlined under Title IX of the Educational Amendments of 1972, Title VI and Title VII of the Civil Rights Act of 1964, as amended, the Age Discrimination in Employment Act of 1967, as amended, Executive Order 11246, as amended, the Vietnam Era Veterans Readjustment Act of 1974, as amended, Section 504 of the Rehabilitation Act of 1973, as amended, the Americans With Disabilities Act of 1990, as amended, the Equal Pay Act, Lilly Ledbetter Fair Pay Act of 2009, the Georgia Fair Employment Act of 1978, as amended, the Immigration Reform and Control Act of 1986, the Genetic Information Nondiscrimination Act of 2008, the Workforce Investment Act of 1998 and other related mandates under TCSG Policy, federal or state statutes.

The Technical College System and Technical Colleges shall promote the realization of equal opportunity through a positive continuing program of specific practices designed to ensure the full realization of equal opportunity.

The following individuals have been designated to handle inquiries regarding the nondiscrimination policies:

| **American With Disabilities Act (ADA)/Section 504 - Equity- Title IX (Students) – Office of Civil Rights (OCR) Compliance Officer** | **Title VI - Title IX (Employees) – Equal Employment Opportunity Commission (EEOC) Officer** |
| --- | --- |
| Helen Thomas, Special Needs Specialist  Vidalia Campus  3001 East 1st Street, Vidalia  Office 165 Phone: 912-538-3126  Email: [Helen Thomas](mailto:hthomas@southeasterntech.edu)  [hthomas@southeasterntech.edu](mailto:hthomas@southeasterntech.edu) | Lanie Jonas, Director of Human Resources  Vidalia Campus  3001 East 1st Street, Vidalia  Office 138B Phone: 912-538-3230  Email: [Lanie Jonas](mailto:ljonas@southeasterntech.edu)  [ljonas@southeasterntech.edu](mailto:ljonas@southeasterntech.edu) |

## accessibility Statement

Southeastern Technical College is committed to making course content accessible to individuals to comply with the requirements of Section 508 of the Rehabilitation Act of Americans with Disabilities Act (ADA). If you find a problem that prevents access, please contact the course instructor.

## GRIEVANCE PROCEDURES

Grievance procedures can be found in the Catalog and Handbook located on Southeastern Technical College’s website.

## **ACCESS TO TECHNOLOGY**

Students can now access Blackboard, Remote Lab Access, Student Email, Library Databases (Galileo), and BannerWeb via the mySTC portal or by clicking the Current Students link on the [Southeastern Technical College (STC) Website](http://www.southeasterntech.edu/) ([www.southeasterntech.edu](http://www.southeasterntech.edu/)).

## Technical college system of georgia (tcsg) GUARANTEE/WARRANTY STATEMENT

*The Technical College System of Georgia guarantees employers that graduates of State Technical Colleges shall possess skills and knowledge as prescribed by State Curriculum Standards. Should any graduate employee within two years of graduation be deemed lacking in said skills, that student shall be retrained in any State Technical College at no charge for instructional costs to either the student or the employer.*

## GRADING POLICY

| **Course Grade** | **Percentage** |
| --- | --- |
| **Lab Reports** | 100% |

## grading scale

| **Letter Grade** | **Range** |
| --- | --- |
| A | 90-100 |
| B | 80-89 |
| C | 70-79 |
| D | 60-69 |
| F | 0-59 |

# CHEM 1151 L – Survey of Inorganic Chemistry Lab

# Spring Semester 2023 Lesson Plan

| **Date/Week** | **Content** | **Comp Area** | **Gen Ed Comp** |
| --- | --- | --- | --- |
| 1/9 | Lab 1: Introduction and Laboratory Safety Procedures  Due: 1/15 11:59 p.m. | 1, 2 | a, b, c |
| 1/16 | Lab 3: Data Analysis and Graphing  Due: 1/22 11:59 p.m. | 1, 2 | a, b, c |
| 1/23 | Lab 6: Electron Configuration  Due: 1/29 11:59 p.m. | 1, 2 | a, b, c |
| 1/30 | Lab 4: Periodic Trends in Atomic Properties  Due: 2/5 11:59 p.m. | 1, 3 | a, b, c |
| 2/6 | Virtual Lab #1: Isotopes and Atomic Mass  Virtual Lab simulator: <https://phet.colorado.edu/sims/html/isotopes-and-atomic-mass/latest/isotopes-and-atomic-mass_en.html>  Power Point Presentation: <https://phet.colorado.edu/services/download-servlet?filename=%2Factivities%2F3950%2Fphet-contribution-3950-7104.pdf>  Due: 2/12 11:59 p.m. | 1, 3 | a, b, c |
| 2/13 | Data Analysis: Radioactivity  Due: 2/19 11:59 p.m. | 3 | a, b, c |
| 2/20 | Lab 7: Molecular Geometry: The VSEPR Model  Due: 2/26 11:59 p.m | 10 | a, b, c |
| 2/27 | Lab 5: Molar Mass  Due: 3/5 11:59 p.m. | 1, 2, 4 | a, b, c |
| 3/6 | Lab 8: Discovering the Five Types of Chemical Reactions  Due: 3/12 11:59 p.m. | 1, 2, 4 | a, b, c |
| 3/13 | Virtual Lab #2: Balancing Chemical Reactions  Virtual lab simulator:  <https://phet.colorado.edu/sims/html/balancing-chemical-equations/latest/balancing-chemical-equations_en.html>  Due: 3/19 11:59 p.m. | 1, 2, 5 | a, b, c |
| 3/20 | Lab 10: The Nature of Acids and Bases: Exploring the pH Scale  Due: 3/26 11:59 p.m. | 5 | a, b, c |
| 3/27 | Virtual Lab #3: Equilibrium  <https://phet.colorado.edu/sims/cheerpj/reactions-and-rates/latest/reactions-and-rates.html?simulation=reactions-and-rates>  Due: 4/9 | 1, 7, 8, 9 | a, b, c |
| 4/10 | Lab 9: Using the Ideal Gas Law  Due: 4/16 11:59 p.m. |  | a, b, c |
| 4/17 | Lab 2: Thinking Like a Chemist: The Scientific Method  Choose one of the labs from this semester to complete a lab report on. You will have two weeks to complete this report.  Annotated bibliography: cite 3 scholarly sources in A.P.A format to support your hypothesis statement. Due 4/23  Lab Report Due: 4/30 11:59 p.m. | 1, 2, 6 | a, b, c |

| Order | Competency Area: 1  Description: Laboratory Safety |
| --- | --- |
| 1 | Discuss and apply laboratory exercises encompassing the appropriate practice of laboratory precautions and laboratory safety. |

| **Order** | **Competency Area: 2**  **Description: Units of Measurement** |
| --- | --- |
| 1 | Perform and apply laboratory exercises encompassing units of measurement. |

| Order | Competency Area: 3  Description: Structure of Matter |
| --- | --- |
| 1 | Perform and apply laboratory exercises encompassing structure of matter. |

| Order | Competency Area: 4  Description: Chemical Bonding |
| --- | --- |
| 1 | Perform and apply laboratory exercises encompassing chemical bonding. |

| Order | Competency Area: 5  Description: Chemical Reactions |
| --- | --- |
| 1 | Perform and apply laboratory exercises encompassing chemical reactions. |

| Order | Competency Area: 6  Description: Gas Laws |
| --- | --- |
| 1 | Perform and apply laboratory exercises encompassing gas laws. |

| Order | Competency Area: 7  Description: Liquid Mixtures |
| --- | --- |
| 1 | Perform and apply laboratory exercises encompassing liquid mixtures. |

| Order | Competency Area: 8  Description: Acids and Bases |
| --- | --- |
| 1 | Perform and apply laboratory exercises encompassing acids and bases. |

| Order | Competency Area: 9  Description: Salts and Buffers |
| --- | --- |
| 1 | Perform and apply laboratory exercises encompassing salts and buffers. |

| Order | Competency Area: 10  Description: **Nuclear Chemistry** |
| --- | --- |
| 1 | Perform and apply laboratory exercises encompassing nuclear chemistry. |

**General Core Educational Competencies**

1. The ability to utilize standard written English.
2. The ability to solve practical mathematical problems.
3. The ability to read, analyze, and interpret information.